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COLLEZIONI %OOLOGICIIE F.ITTE NEA.L'LGANHA
HAL HOTT. F. B.1YON.
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## XII.

ON A THRD COLLECTION OF FISHES MADE BY DR. E. bAYON in UgANDA, i909-19:0

Bi G. A. BOULENGER, F. A. S.

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\text { Phates } 1,\|!,\| \| .
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This eollertion, which hats again been antrusted to me for stanty loy the birentor of the benoa (ivic Musemm, is of special interest, not only as une of the larerest ever mande in Ifriat, the nomber of specimens anounting to wer Boono. but as furnishing the first information on the distribution of Fishes in the Vietoria Vile betwern the Ripon Fralls and the Murehison lablls. It shows that the Fishes of that prat of the Nile are essentially the same ats those of the Vietoria Nyamza, therefore very biflerent from these of the Nile helow the Murchison Fralls. It also adds considmath! to the list of species of the Nile sestem, as an less than lo are here dessribed as new.

Ther collertion was made at the followiner lenalities:
IJussu, Lake Vietoria.
Kidumine, it miles from lassan.
Jinja, Kipon Foalls.
Kakindu, Vi•toria Nile.
Nikanverg Ferry, near Kiakindu. Vietoria Nike.
Bululo, Lake K゙ioga.
Mpolormas Liver, leetween Busoga and Imkendi.

## CICHLIDAE.

1. Daratilapial lonsimostris. Hilg.

Jinja, Bululo.
2. 1'aralilapial prosinatha, l'ellegr.

Kiduminn, Jinj̣t, Kıkintu.
3. Walaidapiza bayonio Bugr.
.Iinja, Bululo.
4. Dilvatilapiat servathus, Prebr.

Jinja, Kiakindu.
5. 1>aratilapia grianti, I'eltegr.

Kidumino, Kikindu, Jinja. - Reaches a length of got millim.
6. I’aratilapiat parvirlena, sp. n. (Pl. I. fig. L).

Deptlo of borly $92 / 3$ times in total length, length of head $93 / 4$ times. Heal nearly 3 times as lone as broarl; snont pointed. with nearly straight upper profile, $1 \frac{1}{2}$ times as long as eye, which is $4 \frac{1}{2}$ times in length of head, $1^{1}, 3$ times in interorbital width, and slightly exceeds least lepth of pracorlital; jaws equal in front; premaxillary processes extending to between ryes; maxillary extemling to below anterior fourth of eye: teeth very small, conical, in : Sepies; 4 serios of scales on the cheek, the deptle of the scaly part below the eye equal to diameter of latter. Gill-rakers rather shopt. ? on lower part of anterior areh, the last large and anvil-shaped. Iorsal XVI! ; spines increasing in length to the last, which measures $1 / 3$ length of heal; longest solt rays $1 / 2$ lengetle of hear. Anal III 8 : thime spine longest, a little longer and much stronger than longest dorsal. Pectorat acutely pointed,
$3 / 4$ lengeth of head, not guite reaching vertical of origin of anal. Tentral reaching a little begond origin of anal. Camdal trumato. Cambat perdinela slightly lomper than deeps. scales foebly denticu-
 a blath operoular spot: fins bown, soft dorsal and rambal with series of suall romm dark spots leotween the mas.

Total lemoth: $1: 00$ millim.
I single specimen from Jinja.


Depth of boty a little less than length of heal. 3 times in total length. Head twire as long as broad: shont with convex upper jrotile, $12 / \pi$ diameters of eyo, which is $1 \frac{1}{3}$ times in length of head. I ${ }^{1}$ amos in interombital widh, and equals least depth of promorbital; jaws equal in tront; pracmaxillary processes not extending to botween eyes: maxillary extemding to below anterior third of eve: teoth comical, in $\quad i$ series. of onter row rather larere the others very small: 6 or 7 sermes of sales on the cheek: the depth of the sealy piret below the eve mual to diameter of latter. Gill-rakers bather short. 10 on lower part of anterior awh. some anvil-shaped. Dorsall $\mathrm{XV}^{\top}$ II: spines imoreasing in lengeth to the last. Which measmes ${ }_{3}$, lengeth of head: lomerest solt rays a littlo over $1 / 2$ tengela of hearl. Anal It 9 ; thisel spime longest, a little shonter but stronger that hongest dorsal. Iectoral acutely pointed, ${ }^{2}$ a lemghth of heat, not reathing vorticat of orimin of amal. Tentral reaching apim of amal. Camdal truncate. Cambal perbuche $\left.\right|^{1}$, times as long as deep. Scales feebly denticulate. very small on hape and on pectomal reerion, 37 $\frac{7 *}{16}$ : lateral lines $\frac{25}{10}$. Raddish brown abose. lighter between wo dank lateral hands. the lower of which is the better masked and extems from the operular spot to alowe the lower lateral line: a mather ill-flefined dark bar below the eye : gular and pectoral regions dark brown; pertorals whitish: wentrals black: the erreater fart of the amal hright vellow, with three large ocellar spots: forsal amb eandill hrown, the latter with the lower "omer vellow:
'total lenoth $18: 3$ millim.
I single pecimen from Jinja.
8. L’aloutilaniat victorianat, PElIEGR.

Jinja, Kakindu.
9. I’:iratilapiat gentio sp. n. (Pl. I. fig. 3).

Depth of body $23 / 5$ times in total length, length of head 3 times. Head twice as long as lnoad; snout romeded, broader than long, with rather convex upper protile, $1 \frac{1}{2}$ times as long as eye, which is 4 times in lengeth of head, $1 \frac{1}{2}$ times in interorbital width, and exceeds least depth of preorbital; jaws equal in front; lips thick; promaxillary processes extending to betwern eyes; maxillary extending to below anterior fourth of eye; teeth small, conical, in 3 series, ahout 60 in outer row of upper jaw; 3 series of scales on the elieek, the depth of the scaly part below the eve equal to diameter of latter. Gill-mkers rather short, ? on lower part of anterior areh, the longest bifid. Dorsal XVI 9: spines erual in length from the seventh, which measures $2 / 5$ length of head; longest soft rays $1 / 2$ lengith of heal. Anal III 8 : third spine longest, as long as and stronger than longest dorsal. Pectoral pointed, nearly as long as hear, not reaching vertical of origin of anal. Yentral reaching rent. Cambal rounded. Caudal peduncle as long as deep. Scales feebly denticulate, $30 \frac{4}{12}$; lateral lines $\frac{20}{6}$. Brown above, yellowish below; two dark hrown stripes on each side, the upper above the upher lateral line, the lower wider and extending from the eye to the eatall fin; dorsal, caudal, and pectoral brownish, other fius yellowish.

Total length $1: 30$ millim.
This speeies, mamed after Dr. R. Cestro, is represented lyy a single specimen from Jinja. It is allied to $P$. bicolor, Blgr., and P. crassilabris, Blgr.
10. Parittilapia orinnti, BlGR.
.inja.
H. I'aratilapia retrodens, Hilgend.

Jinja.

Jinjíı.

V̌i"turia NYan\%a, Jinja, Jhussu.





















 dimer fioma the eve to the athulal fin: tins lumwnish, mail with


Total lowerll !ls millim.
'Fwo sperimems fomm Jinja.

.Jinja.

.Jinja, Ǩakintu.

17．Delmindochionnis spelzii，Bufr．
Jinja．

Depth of berty $2^{1 / 2}$ to 3 times in total length，lengeth of head ソュ $1_{2}$ to $\because \because / 3$ times．Head twice or a little orer twice as long as broad；suout rommed，as long as hoad，with feebly ronvex upper profile， $1 / \frac{1}{4}$ to $12_{3}$ times as long as eye，which is $? 3 / 4$ to $12 / 3$ times in length of hoad， 1 to $1 / 3$ times in interorbital width，and excreds least depth of paraorbital：jaws ＂fual in front；maxillary extending to below anterior border of ＂ye or not quite so far；teeth ronical，in 3 or 4 series，onter rather small，immernimate；：＇ mo $^{\circ}$ 亿 series of scales on the charek， the depth of the scaly part loelow the eye equal to diameter of latter．Gill－wahers mather short， 7 to 9 on lower part of anterion arrh，the lungest bitid．Dorsal XT－XVI S－10，spines increasing in lengeth to the last，which measures $1 / 3$ to $2 / 5$ longth of lead； longest soft rays $1 / 2$ to $3 / 5$ lengtl of head．Anal 1118 －10；third spine longest，as long as and strongre than longest domsal．Vectoral pointed， $3 / 4$ to $4 / 5$ length of hewd，reaching vertical of origin of anal，or a little beyond．Tentmal reaching origin of anal or at little bevomi．Citudal truncate．Catudal perduncle $1 \frac{1}{3}$ to $1 \frac{1}{2}$ times as long as deep．Sables ferbly denticulate， $30-33 \frac{5}{11-13}$ ；lateral lines $\frac{19-22}{7-13}$ ．Brownish，uniform or with 6 or 7 rather indistinct darker cross bands；a dark vertical bar may be present lolow antrror third of eye；rentrals barkish in the male，at least at the base，yellowish in the female．

Total leneth $1 / 101$ millim．
Eight specimens from ．Injut．
Closely allied tu P．microdon，Blgr．
19．Pelmatochronnix ablye－us，BLar．

Bussu．
20．Memitilapiaz bavoni，Blar．
Jinja．

## BAYONIA, ir. 11.

Near Itemitilapia, but teeth much larger and fewer. in two serics. the onter with very large rompressed crowns, with lungr inner "usp directed inwards and vers short or indistinct onter cosp. the inner minate and conical:
21. Hatyonia xenodonta, sp. 11. (1). 11. fig. 4).

Hepth of body $2 \frac{1}{2}$ times in total leneth. lemeth of head : times. Head twice as loner as broul. upper profile descemding in an even come: snout rounded, as long as homat, as long as exa, which is $3 \frac{1}{3}$ times in length of head and equals interorbital width; jaws equal in front: maxillary extending to below anterior border of aee; 约 teeth is outer row of miper jaw: immer teeth small and few, confined to the sides; three series of scates on the elreek, the depth of the scaly part below the eye less than the diameter of the latter. (iill-rakers short. 9 on lower part of anterior arch, Dorsal XTI! : spines increasing in lengeth to the last, whirh meationes mearly $\%$ lengeth of head: longest soft mas a little mor( than $1 / 2$ lengrth of hearl. Anal In !! third spine longest, not quite $1 / 2$ lemoth of heal. Pectoral acutely pointed, as long as heal, reaching wertical of origin of anal. Temtral rearhing origin of amal. Candal trumeate. Caulal pedum le a little lonuro
 brownish almee, whitish broath, with eight darker crosi-hars, traversed by a dark latemal stripe extending from the opereular spot to thr caudal: vertical fins uniform brownish, paired tins whitisis.

Total lenrth !o millim.
1 single sureimen from Jinj:a.
22. Maplochromis pereniden, Bt, GR.

1:ululo.

Kiakindu, Bululo.
24. IIaplochnomis desfintainesi, Lacep.

Pussu, Jinja, Kakindu, Bululo.
Sume specimens are entirely black.
25. Haplochiomis alluandi, I'ellegr.

Kakindu, Jinja, Bululo.
The 20 specimens in the collection show the following variations in the number of dorsal and anal rays.

26. ITaplochiromis stanleyi, Blgr.

Jinja, Kakindu, Bululo.
27. Hatplochromis ishmateli, Blar.

Bussu, Jinja, Kakindu.

 measurimg is to f millin, in diametcr.

 llead twiore or a little were twier as lone as broad: sumt rommad.
 thans in lengeth of heat, and exceeds interombital width and hatit Anpth of pramolntal; jaws equal in tront; maxillat? extemdiner a little berond vertieal of anterion bender of "yo: toeth sumall, in "i

 cheres the depth of the scaly bat bolow the "yo about ${ }^{\circ}$ as diameter of latter. Gill-rakers rather short. 7 or on bow frat



 ${ }^{3}, 40^{4} /$, lenerth of head, not reathimer vertical of orimin of amal. Vontral Jearhing origimut and or a lithe heyomb. Candal rommed-suhtramate.
 dentionlato, very small on jertoral texion, 30-33 $\frac{1}{14}$; latrabl lines
 red: at mome or less distinct blatek bar below the eve: dorsal and vontrals brown tu back: anal pink. batrkish at tha basc. nsually with two of three large oratige acellar spots: amulal hrown on backish. the lower thise often pink.
fotal lengeth 130 milim .
Nine suerimens from Kitkindu.
"The nemest ally of this species is $T$ '. marlini, blys".
e 20. Coilapiat pillidit. -p. n. (IN. II. lir. 1).
Depth of booly 3 to $3^{1}{ }^{2}$ times in total lemeth. leneth of hat



lemogh of heru, efuals interorbital width, and exemds least depth of praeorlital; jaws equal in front: maxillary not extending quite to below anterior border of eyr-; teeth small, in ?' or 4 rows. onter larest, with ohlique bienspid arowns, 30 to B0 in upher jaw, inner roniral on intistimetly trimspiol: B or 4 series of scales on the dheek, the depth of the scaly part below the eye about ${ }^{2}$ an diameter of latter. Gill-maters shori, some bitiol, 7 or 8 on lown pat of anterior areh. Dorsal XV-NYT S-IO (usually 9) nearly equal in length from the fifth or sixtl, about $2 / 5$ lengeth of heal; longest soft buys $1 / 2$ to $3 / 5$ length of head. Anal III $8-9$ (usually 9 ); thimb spine longest, as long as longest dorsals. Pertomal abutely pointert, as long as or a little shorter thath head, reaching vertical of oriorin of anal. Tentral reaching on nearly reaching origin of anal. Camdal
 Scales feebly denticulate, very small on pectoral region, 30-3:* $\frac{4.5}{11-12}$ : lateral lines $\frac{18-23}{8-13}$. Mellowish on pale brownish, with 6 to 8 more or less distinct dark iross-bats. which may be traversed by a dark lateral band extending from the eye to the catdal fin; fins yellowish or pale brownish, soft dorsal and cankal sometimes with small romm dark spots.

Total lengtlı ! 0 millim.
Nunerous specimens from Jinja and from Bussu. One 38 millim. lung, has younge in the mouth.

Allied to T. martini, Hlmp.
30. 'Mililpiza lacrimmont, BLaR.

Bussu, Kidumino, Jinji:, Bululo.
31. Tilapiar mubilat, Magr.

Kidumino, Jinja, Kakindu, Bululo.
32. Tilapiar maciopp, sp. n. (Pl. IIl. fig. 1).

Depth of borly equal to length of head, $2 \sqrt{2} / 4$ to 3 times in total length. Head twice, or a little over twice, as long as broad; snout rounded, with slightly eonvex upper protile, shorter than eye, which is 3 times in length of lead, equals interorbital
width, and much axdeeds least depth of pratorbital: jaws equal in front: maxllary extembing to below anterion border of "ex: lereth suadl, in 3 or 1 rows, outer latrpest and bienspid, others trionspud;
 the chech. the depith of the sably part betow the eye about = ${ }_{3}$ diameter of lattur. Gill-rakers moderate, 10 to 12 on hows part of anterior arch, Jorsal XV-AV] !-l0: sjines equal from the $7^{\text {th }}$ or $8^{\text {th }}$. Which measures about $2 / 5$ lengeth of leatl lomgest suft rays a little mome than ${ }^{1 / 2}$ gemgth of hand. Anal III ! ! thind spine

 anal. Camdal truncate. Caulal perlumen a little longen than derp.
 Brownish abowe, whitish hemeath, with 7 to 10 rather imdistinct dark cross-hars which may he draversed by a dark lateral strijue extemding from the operanlar spot to the ratulal tim; fins lownonsh.

Total lemuth 100 millin.
Threre specimens from bussu amb one from dinja.
Iistinguished from $T$. lacrimosa by the larger eyes the more muneroms gill-raktrs, the shorter camdal peduncle, etre

hepth of buly $31 / 3$ to $3{ }^{2 / 3}$ times in tutal longth. lemerth of

 as long as eye, which is $3{ }^{1 /} / 3$ to $31 / 2$ times in lemeth of locad, equals interorbital width. and exceeds heast depth of pracorlital; jaws orpual in front; maxillary extending to below anterion bopder of eye; terth small. shember, rlosely set, in 1 or $\ddot{3}$ rows, onter hisuspid, wher's triouspid; 仏 to $\ddot{\beta}^{\prime} 1$ tereth in outer row of upper jaw; :3 serimes of seales on the cheek, the depth of the scaly part lrew the eve less than diameter of latter Vill-rathers short. 7
 increasing in lengeth to the last, which measures $\frac{1}{2}$ lengeth of leat : longrest suft rays $3 / 5$ to $\frac{2}{3}$ lengeth of head. Anal III K -10: third spine longest, as lome as on a little shorter than last dersal. lewtoral shorter than head, not reachiner vertacal of oricin of anal. Ventral nut reachimg oripin of anall. Coudal rounded-smbtrumate.

Caudal peduncle $1 / 2$ to $13 / 4$ times as long as deep. Suales rather strongly denticulate, very small on pertoral region, $32-3: 3 \frac{4}{10}$ : lateral lines $\frac{20-23}{11-13}$. Hrown above, whitish beneath; a more or less distinct vertical dark bar below anterior third of eye; dorsal, candal and peraral fins brown, anal brownish or fellow, with or without two or three ocellar spots; ventrals hack in the male, yellow in the female.

Total lenerth 110 millim.
Six specimens from Kakindu.
Well distinguished from most of its allies loy the elongate shape of the borly, and from $T$. perrieri, Pellegr., by the shorter snont, the broales interorbital space, the non-projecting lower jaw, etc.

## 34. 'Tilapia nigricans, Blgr.

Jinja, Kakindı.

3ั. Tilapia simotes, sp. n. (Pl. III. fig. 4).
Depth of body equal to or little greater than length of head, $23 / 4$ to 3 times in total length. Hear twior as long as broad. uper profile forming an even, strong curve; snonf lioadly rounded, much broader than long, as long as eye, which is $31 / 3$ to $: \frac{1}{2}$ times in length of head, equals interorhital width, and exceeds least depth of praeorbital; upper jaw projecting beyond lower; maxillary extending to below anterior border of eye, or a little beyond; teeth small, very slender, closely set, in 6 to 8 rows, outer bicuspid. others fricuspid; 60 to 80 teeth in outer row of upper jaw; 3 or 4 series of scales on the check, the depth of the scaly part below the eye a little less than diameter of latter. Gill-rakers rather short, 8 or 9 on lower part of anterior areh. Dorsal XV-XVI 9-10; spines increasing in length to the last, which measures $1 / 2$ length of head; longest soft rays $3 / 4$ to $4 / 5$ length of head. Anal ItI 8-9; third spine longest, neirly as long as last dorsal. Pectoral a little shorter than head, not reaching vertical of origin of anal. Ventabl reaching origin of anal or a little beyond. Caudal rounded. Caudal pedunele slightly longer than deep. Scales rather strongly dentienate, very small on

 a black hat below the eye may fre present; anal lexpmenty with twor or there bright orellar sputs.

Total lobstla $1 / 0$ millim.
 No:nly related tu $T$. miguicans, Blyr.


Jinja. Rakimlı.

## MASTACEMBELIDAE.

37. Minctacermbeln- vircorriary, Bhati.


## SILURIDAE.



Mpularoma R., Bnlulo, Kakindn.

Mpolorema R.
40. Clarvian allathlit, Blar.

Bululo.

lake Victoria.

## CYPRINIDAE.

42. 1sanlons labosenys, BLar.
lake Victoria.
43. 13:nxbug riddelillii, Bugr.

Kakinda.
4. 13:trons batyoni, sp. ก.

Depth of hory $\boldsymbol{3}^{1 / 3}$ to $: 31 / 2$ times in total length, length of head $3^{1 / 2}$ to 4 times. Snout rounded, projectines beyond mouth, 3 to $: 31 / 2$ times in length of head; eye $32 / 3$ (yomng) to 7 times in length of had, interorhital width $\underline{2} 1 / 2$ to $\underline{9} 4 / 5$ times; width of mouth $\boldsymbol{i}$ to $: \frac{1}{2}$ times in length of head; lips well developed. broadly intermpted on the chin; bablels two on each side, anterion $2 / 3$ to $4 / 3$ diameter of eye postrerior nearly as long as eye, the distance between them greater than diameter of eye in the atult. Dorsid III-IV 9, free edge distinofly emarginate; last simple ray strong, bony, not semated, $1 / 2$ to $2 / 3$ leneth of head; the fin nearly equally distant from oceiput and from root of candal. Anal II-III :"; longest my abont $2 / 3$ length of head. Pectoral $2 / 3$ to ${ }^{3 / 4}$ length of hean, not reaching ventral. Yentral below anterior rays of dorsal. Candal derply forked. Candal pertancle $11 / 2$ to $13 / 4$ times as longr as deep. Scales finely striated longitudinally, $32-94 \frac{61 / 2}{51 / 2}$, 3 between lateral line and rentral, fy round candal peduncle. Olive-brown above and on the fins, whitish beneath; scales of young edged with blackish.

One adtult specimen gho millim. long from dinja, and two young ( $170-203$ millim. longr) trom Kakindu.

Tery closely allied to $B$. intermedius, liaipp.
45. 13influ- minclinini, Blgr.

Kidumino, Jinja.
46. Labero vietodianhle, BLGR.
.Jinja.

## CHARACINIDAE.

47. Alester sadlleria, Blifr.

Jinja, Kiakindı, Bululo.
48. Mrostore nursar, Rüpr.
. Jinja.
MORMYRIDAE.

49 Mormyrus kinmmmote, Foksk.
Jinja.

## LEPIDOSIRENIDAE.

50. l'rotopterne aethiopicus. Hfack

Ipologoma River.

Explasitioy of the Plates.

Platel.
Figr. 1. Peratilapia parvidens. $5 / 6$.
乌. $\quad$. pecloralis. ${ }^{2}{ }_{3}$.
$3 . \quad$ g gestri. $5 / 10^{\circ}$
Plate: II.
Fig. 1. Tilapia prallida. ${ }^{3}$.
2. Paratilapia chilotes. ¹/5
3. Pelmatochromis riponitmens. ${ }^{2}$.

1. Bayonia xenodonta. 3/4.

Plate III.
Fies. 1. Tilapia macrops. ${ }^{2}$.
2. b bayomi. $5 / \pi$
3. " humilior. ${ }^{3}$.

ィ. , simoles. ${ }^{3 / 5}$.

